

Resin

## Plexiglas<sup>®</sup> SG10 acrylic resin

| PROPERTIES                              | VALUE   | UNITS                        | TEST METHOD |
|---|---------|------------------------------|-------------|
| <b>Physical</b>                         |         |                              |             |
| Melt Flow Rate (230°C / 3.8 kg)         | 4.1     | g / 10 min                   | ASTM D1238  |
| Specific Gravity                        | 1.15    |                              | ASTM D792   |
| Mold Shrinkage                          | 0.3-0.8 | %                            | ASTM D955   |
| Water Absorption (24 hr. immersion)     | 0.4     | % weight gain                | ASTM D570   |
| <b>Mechanical</b>                       |         |                              |             |
| Tensile Strength @ Maximum              | 5,300   | PSI                          | ASTM D638   |
| Tensile Elongation @ Break              | 50      | %                            | "           |
| Tensile Modulus                         | 270,000 | PSI                          | "           |
| Flexural Strength, maximum (Yield)      | 10,300  | PSI                          | ASTM D790   |
| Flexural Modulus                        | 270,000 | PSI                          | ASTM D790   |
| Notched Izod Impact(73°F/23°C)          | 0.9     | ft-lb/in notch               | AST M D256  |
| Rockwell Hardness                       | 38      | M                            | ASTM D785   |
| <b>Thermal</b>                          |         |                              |             |
| HDT (0.455 MPa; annealed) <sup>1</sup>  | 190     | °F                           | ASTM D648   |
| HDT (1.82 MPa; annealed) <sup>1</sup>   | 181     | °F                           | ASTM D648   |
| Vicat Softening Point (50°C/hr; 10N)    | 199     | °F                           | ASTM D1525  |
| Vicat Softening Point (50°C/hr; 50N)    | 176     | °F                           | ASTM D1525  |
| Thermal Conductivity                    | 1.5     | BTU/hr*ft <sup>2</sup> *F/in | ASTM C177   |
| <b>Optical</b>                          |         |                              |             |
| Refractive Index (ND @ 73°F)            | 1.49    |                              | ASTM D542   |
| Luminous Transmittance (0.125"/3.2 mm.) | 90      | %                            | ASTM D1003  |
| Haze (0.125 in./3.2 mm.)                | <2      | %                            | ASTM D1003  |
| ASTM Classification                     |         | PMMA 0230V2                  | ASTM D788   |

Data given are average values and should not be used for specification purposes.

1. Annealing Cycle: 4hrs @ 80°C

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